Before the FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of)	FEDERAL COM- OFFICE OF SECRETARY MISSION
Interconnection Between Local)	CC Docket No. 95-185
Exchange Carriers and Commercial)	
Mobile Radio Service Providers)	

DOCKET FILE COPY ORIGINAL

COMMENTS OF AMERITECH

Frank Michael Panek Attorney for Ameritech Room 4H84 2000 West Ameritech Center Drive Hoffman Estates, IL 60196-1025 (847) 248-6064

Dated: March 4, 1996

No. of Copies rec'd

TABLE OF CONTENTS

1.	Introduction	1
II.	The Commission Should Continue Its Reliance Upon Market Based Incentives	2
III.	Implementation of Mutual Compensation Proceeds Across the Industry	3
IV.	The Proposed "Solutions" Do Not Achieve the Commission's Policy Goals	5
V.	The Commission Lacks Jurisdiction to Order Uniform LEC-to-CMRS Interconnection Arrangements	11
VI.	Conclusion	13

Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)	
)	
Interconnection Between Local)	CC Docket No. 95-185
Exchange Carriers and Commercial)	
Mobile Radio Service Providers)	

COMMENTS OF AMERITECH

I. Introduction

Ameritech respectfully submits these comments in the above-captioned matter, reaffirming its continuing support for the Commission's underlying policy objective of "creating or replicating market-based incentives and prices for both suppliers and consumers". Negotiated interconnection agreements between local exchange carriers ("LECs") and commerical mobile radio service ("CMRS") providers offer the most effective means for realizing both that policy objective and the fully-integrated "network of networks" envisioned by the Commission, and should continue to be encouraged as the favored means of promoting full and effective interconnection.

¹ In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket No. 95-185, CC Docket No. 94-54, Notice of Proposed Rulemaking, rel. January 11, 1996 (hereinafter "NPRM"), at 4 (¶ 4).

II. The Commission Should Continue Its Reliance Upon Market Based Incentives

Ameritech strongly concurs in the Commission's stated policy objectives with respect to the telecommunications marketplace in general, and to the CMRS marketplace in particular. The paramount principle guiding further evolution of the Commission's rules should continue to be to "adopt policies that are intended to create or replicate market-based incentives and prices for both suppliers and consumers."²

The acknowledged effectiveness of the unfettered forces of the marketplace should continue to be given every opportunity to produce the lowest possible prices. The operation of these forces, and their inherent reliance upon cost-driven mechanisms, will continue to send consumers the "cost-based pricing signals" desired by the Commission, and will thus "ensure an efficient level of innovation . . . as well as the efficient entry of new firms." 4

Early in its consideration of the matters at hand, the Commission established a mutual compensation requirement for LEC-to-CMRS interconnection. At that time, three related duties were imposed upon LECs: (1) to negotiate such interconnection arrangements in good faith, (2) to provide interconnection on rates, terms and conditions that are just, reasonable, and non-discriminatory, and (3) to establish reciprocal compensation arrangements.⁵ The Commission firmly backed these

² NPRM, at 4 (¶ 4).

³ NPRM, at 4 (¶ 4).

⁴ Ibid., at 4-5.

⁵ In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Second Report and Order, rel. March 7, 1994

interconnection requirements with assurances that its full array of enforcement mechanisms would be available to all intended beneficiaries of these requirements. Specifically, the entire range of complaint procedures available under Sections 202 and 208 of the Communications Act⁶ were made available as ready remedies for any CMRS provider seeking interconnection.⁷

III. Implementation of Mutual Compensation Proceeds Across the Industry

Under the Commission's firm guidance, negotiated LEC-to-CMRS interconnection arrangements continue to reflect the principle of mutual compensation for termination of traffic. As the NPRM aptly notes, "most LECs, AT&T and established cellular carriers, as well as some SMR, paging and PCS providers, support the existing requirement that LECs engage in good faith negotiations over interconnection with CMRS providers." This existing negotiation approach is further acknowledged by the Commission to have provided "adequate protection against LEC discriminatory conduct," and "most LECs and cellular carriers say they are satisfied with the current process."

(hereinafter "CMRS Second Report"), at 88 (¶ 232). These duties are paralleled by the recently-enacted Telecomunications Act of 1996 [47 USC §251(b)], as to incumbent Local Exchange Carriers.

- 3 -

^{6 47} USC §§ 202, 208.

⁷ CMRS Second Report, at 68-9 (¶¶ 175-6).

⁸ NPRM, at 39 (¶ 83).

⁹ Ibid.

That the current system of market-based incentives is working precisely as intended is established most strongly by the lack of complaints to date. ¹⁰ Despite the obvious persistence of a few parties to convince the Commission otherwise, it is precisely for this reason that the NPRM could speak of a "problem" only in hypothetical terms. The strongest statements possible, in the complete absence of record evidence supporting the need for action, are necessarily phrased in the abstract; e.g., LECs "may have the incentive and the ability to prevent or reduce the demand for interconnection," "may attempt to restrict the entry of potential competitors," "may extract monopoly rents," or may . . . engage in collusive behavior." ¹¹ Indeed, stronger statements would be impossible, for there is no real "problem" to be "solved".

Ameritech continues to fulfill principles of mutual compensation in its CMRS interconnection arrangements. CMRS interconnection has been available (either under cost-supported, state-approved tariffs or on a contractual basis) in all five states served by the Ameritech operating companies. These arrangements provide CMRS providers with a wide range of choices as to both service configuration and billing options. They also compensate CMRS providers for their costs of local switching, based upon the particular configuration chosen by a particular provider. These arrangements

¹⁰ No formal FCC complaint has ever been filed against Ameritech by any CMRS provider seeking interconnection, either before or since the Commission imposed the duty to interconnect.

¹¹ NPRM, at 7 (¶ 12) (emphasis added). Indeed, the strongest possible conclusion was drawn from these vague possibilities; namely, that "intervention \underline{may} be necessary." \underline{Ibid} ., at 7 (¶ 13) (emphasis added).

¹² A detailed description of these currently-available arrangements is provided as Attachment A to these Comments.

are available on a non-discriminatory basis, and they reflect appropriate cost-recovery principles in all cases.

In addition, Ameritech is currently involved in advanced negotiations for interconnection with a major CMRS provider, which will hopefully yield an agreement in the near future providing for mutual compensation arrangements that permit direct cost recovery by each party of the specific costs it incurs in terminating traffic originated on the other party's network. This bargaining effort should soon provide concrete evidence of the efficiency of the "market-based incentives and prices" preferred by the Commission. ¹³

IV. The Proposed "Solutions" Do Not Achieve the Commission's Policy Goals

A. No need has been shown for any "interim" solution

As a threshold matter, it must be acknowledged that the NPRM contains not a scintilla of evidence that any "interim" solution is needed, or even desirable, from a policy perspective. As noted above, the only arguments put forth in favor of these short-sighted approaches are based upon hypothetical evils. Good-faith negotiation, as required by the Commission and implemented by both the LEC and CMRS communities, has produced the desired effect in a relatively short time. In light of the remarkable near-consensus to date, 14 it is somewhat surprising that the imposition of

¹³ CMRS interconnection agreements providing for mutual compensation have been negotiated by other LECs, including NYNEX.

¹⁴ In the NPRM's4-page statement of the commenting parties' positions on cost-based compensation and "bill and keep," ten of the twelve footnotes cite materials furnished by either Cox or Comcast -- or both together. NPRM, at 16-19 (n. 42-53).

some "interim solution" is even under consideration. Put simply, since the market is working, any interim measure would represent a "solution" in search of a "problem." ¹⁵

Nonetheless, several of the measures suggested by those few parties who advocate artificial intervention by the Commission are so deeply and obviously flawed from a policy viewpoint that they merit a specific debunking on the record. These are dealt with in the balance of this section.

B. A "bill-and-keep" approach would impose an unjustified subsidy

As the Commission has noted, the policy goals of consumer benefit in the forms
of lower prices and wider choices are inseparably coupled with the principle of costbased pricing. As aptly noted in the NPRM, "[c]ompetition drives prices toward costs:
in a competitive market, rival service providers will have strong cost incentives to
reduce their prices to attract customers until prices approach their costs." ¹⁶
Surprisingly, despite this fundamental principle of the Commission's CMRS
interconnection policy, the NPRM tentatively decides to step in exactly the opposite
direction by removing cost from the equation and replacing it with an acknowledged
subsidy. ¹⁷

The Commission's proposed adoption of a so-called "interim" solution would also carry an implicit intent to revisit the topic at some later date with a corresponding "permanent" solution. Given the sheer size of the obligations imposed by the recent enactment of the Telecommunications Act of 1996, the availability of Commission resources to do so appears doubtful in the near term. Thus, on a practical basis, an interim solution is likely to remain in place for some time to come. While this result would doubtless be welcomed by those few parties who advocate bill and keep, the clearly unjust result is obvious.

¹⁶ NPRM, at 5 (¶ 6).

¹⁷ The NPRM flatly states a concern "that existing general interconnection policies may not do enough to encourage the development of CMRS, especially in competition with LEC-provided wireless service." NPRM, at 3 (¶ 2). Adoption of an interim "bill and keep" arrangement is proposed "in order to ensure

Nevertheless, the adoption of an explicit subsidy might be viewed as reasonable if it were related to some identifiable social objective. As noted by the Commission in the universal service context, "we have pursued our mandate under the Communications Act by adopting specific programs... in areas and for individuals where special needs exist." ¹⁸

However, CMRS providers, as a class, hardly represent a group exhibiting "special needs" for a subsidy. The well-documented growth of today's vibrant cellular industry¹⁹ has been nothing short of phenomenal. The initial auctions of broadband PCS spectrum attracted bidders who, based upon business plans formulated under the Commission's existing "good faith negotiation" obligations, ultimately paid over \$7 billion for the privilege of building their networks.²⁰ This fact alone would seem to be clear evidence that the Commission's existing requirements are producing the preferred market-based incentives.

the continued development of wireless services as a potential competitor to LEC services." NPRM, at 4 (¶ 3) (emphasis added). More explicit subsidy language would be difficult to frame.

¹⁸ NPRM, at 5 (¶ 5).

¹⁹ It was recently noted that "(t)he wireless telecommunications marketplace has been <u>one of the great economic success stories of our times</u>... From 1983 through 1994, cellular subscriber growth has averaged about 50% per year. Double digit growth is expected through the end of the century." Statement of Regina Markey Keeney, Chief, Wireless Telecommunications Bureau, before the Oversight and Investigations Subcommittee, House Commerce Committee, October 12, 1995 (emphasis added). The industry has also been said to have experienced "astonishing growth in subscribers — <u>the fastest growing consumer electronic product in history</u>." Testimony of Thomas E. Wheeler, President & CEO, CTIA, before the Oversight and Investigations Subcommittee, House Commerce Committee, October 12, 1995 (emphasis added).

²⁰ The PCS consortium known as "Wireless Co", whose equity members include Cox and Comcast -- the two most vocal proponents of "bill & keep" -- recently won broadband PCS licenses in more than 30 markets across the country, at a total cost of over \$2.1 billion.

Even assuming that a subsidy of some form was considered desirable in this classic free-market context, it would be particularly surprising if the "bill and keep" approach were the chosen approach. The economic literature is nearly unanimous in its criticism of this approach, as the record in this proceeding will undoubtedly demonstrate. Bill and keep arrangements violate nearly every accepted principle of economically-efficient pricing, as more fully set forth in the attached statement of Dr. Kenneth Gordon.²¹ As applied to LEC-CMRS interconnection, these arrangements are completely at odds with cost causation principles. Thus, they invite arbitrage among similarly-situated carriers and networks; they provide direct incentives for continued imbalances in carrier traffic handling and routing; and they provide a direct economic benefit to the carrier sending the most traffic to the other's network.

Even the only authority cited in support of a "bill and keep" subsidy²² acknowledges that a bill and keep approach is economically efficient only "if either of two conditions are met: (1) traffic is balanced in each direction, or (2) actual interconnection costs are so low that there is little difference between a cost-based rate and a zero rate."²³

The first of these conditions is demonstrably not met today. Ameritech's experience is that over 80% of the traffic between its wireline network and

²¹ Dr. Gordon, a Senior Vice President of National Econimic Research Associates, Inc., was formerly the Chairman of both the Massachusetts Department of Public Utilities and the Maine Public Utilities Commission. Prior to holding these positions, he was an industry economist at the FCC. Dr. Gordon's statement is included herewith as Attachment B.

²² NPRM, at 7 (n. 7); at 17-18 (n. 47-50); at 30 (n. 78); at 32 (n. 80-82).

²³ NPRM, at 30 (¶ 61).

interconnected CMRS providers' networks is originated by CMRS customers.²⁴ Moreover, this imbalance will clearly continue, for reasons unrelated to inter-carrier compensation arrangements. For example, many cellular customers utilize paging services for incoming calls to control airtime costs and maintain privacy, or use voicemail services to receive incoming calls on a stored basis only. Also, emergency and/or safety uses are increasingly important reasons for new purchases of cellular service, which places further emphasis on this "originate-only" mode of usage.

The second of the NPRM's two conditions (i.e., that the actual cost of terminating traffic must approach zero) cannot possibly be met unless a purely incremental costing methodology were to be employed in the Commission's analysis. As the NPRM admits, the oft-cited figure of "0.2 cents per minute" for local termination cost on LEC networks is a simple average of his estimates of 2.1 cents per minute during busy hour and "zero at off peak." Moreover, this incremental cost approach is philosophically flawed in and of itself, as it ignores the very real costs of the enormous network investment made by LECs precisely to support the peak traffic demands of their customers. Bill and keep would in effect, place the entire cost of maintaining LEC networks on wireline customers, since CMRS providers' customers would generate revenue only for CMRS providers, who send substantially more traffic than they receive from LEC.

_

²⁴ Pacific Telesis' experience reflects that the proportions of traffic delivered by and sent to CMRS providers can be even more unbalanced, at 94% (NPRM, at 21, n. 60).

²⁵ NPRM, at 30 (n. 78). The factual foundation for the costs so stated is unclear at best.

C. LEC-to-LEC interconnection arrangements are not an appropriate model for LEC-to-CMRS arrangements

The NPRM states that, since "[n]eighboring LECs generally are larger and more established than CMRS providers and thus more likely to have been able to negotiate reasonable interconnection arrangements", 26 the interconnection arrangements between LECs might serve as a model for LEC-to-CMRS agreements. This would be extremely inappropriate. Existing LEC-to-LEC interconnection arrangements have typically evolved over long periods of time, and thus reflect a non-competitive -- and pervasively-regulated -- environment. In reality, these arrangements are not so much the result of carrier-to-carrier negotiations as they are expressions of state regulatory policies regarding the contractual arrangements between the carriers involved. They are also specifically designed to support preordained rate levels and rate structures for end users of the carriers, in particular low rates (often unlimited-usage "flat" rates) for local calls and higher rates for toll calls. Furthermore, they may also reflect jointlyestablished dedicated facilities, often configured on a "meet point" basis. Significantly, since LEC-to-LEC traffic flows are generally balanced in both directions between the carriers, measured compensation arrangements have historically been the exception rather than the norm. Overall, the differences between these arrangements and today's CMRS marketplace make LEC-to-LEC interconnection a poor model for the present inquiry.

²⁶ NPRM, at 33 (¶ 69).

V. <u>The Commission Lacks Jurisdiction to Order Uniform LEC-to-CMRS</u> Interconnection Arrangements

In its discussion of possible means to implementation of LEC-to-CMRS interconnection policies, the Commission tentatively concludes that it "has sufficient authority to implement these options, including our proposal that interconnection compensation on a bill and keep basis be adopted on an interim basis."²⁷ Ameritech respectfully disagrees.

First, as to the controlling issue of congressional intent²⁸, there are several clear indications that privately-negotiated interconnection and compensation arrangements are precisely what Congress intended. As the NPRM notes, the Omnibus Budget Reconciliation Act of 1993 removed state and local authority over market entry and the rates charged by CMRS providers.²⁹ However, the Budget Act of 1993 also expressly limited the Commission's authority to:

"order a common carrier to establish physical connection with (CMRS).... Except to the extent that the Commission is required to respond to such a request, this subparagraph <u>shall not be construed</u> as a limitation or expansion of the Commission's authority to order interconnection"30

Thus, the clear intent of Congress was to limit the Commission's authority to the act of responding to a request for interconnection.

²⁷ NPRM, at 53 (¶ 111).

²⁸ See, e.g., <u>Louisiana PSC v. FCC</u>, 476 US 355, 369, noting that "(t)he critical question in any preemption analysis is always whether Congress intended that federal regulation supercede state law."

²⁹ 47 USC § 332 (c) (3).

³⁰ 47 USC § 332 (c) (1) (emphasis added).

A more recent expression of intent is equally clear, in the form of the Telecommunications Act of 1996. Section 252 (a) (1) of the Act states that:

"an incumbent LEC may negotiate and enter into a binding agreement (for interconnection) (which) shall include a detailed schedule of itemized charges for interconnection and each service or network element included in the agreement. The agreement... shall be submitted to the State commission (for approval) under subsection (e) of this section." 31

Thus, the Act makes clear that privately-negotiated interconnection agreements are permitted, including schedules of charges, and that approval of such agreements is the intended province of the State authorities.³² No clearer expression of Congress' intent to prohibit mandatory federal interconnection requirements is likely to be found.

Second, as to the question of federal preemption of state regulation which "precludes (or effectively precludes) entry of CMRS providers,"³³ it cannot credibly be argued that state approval of privately-negotiated interconnection agreements under the new Act could possibly thwart the federal policy in favor of interconnection.

Indeed, the Act itself prescribes its own remedial powers for the Commission only upon a finding, after notice and public comment, that such state action prohibits, or has the "effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."³⁴

^{31 47} USC § 252 (a) (1).

³² See also 47 USC § 252 (e), describing the state-level procedures for review and approval, and limiting the Commission's preemption authority to cases in which the state fails to act within 90 days.

³³ NPRM, at 53-4 (¶ 111).

³⁴ 47 USC § 253 (a), (b), (d).

In the light of these clear manifestations of Congressional intent, the NPRM's discussion of the "severability" of the interstate and intrastate components of CMRS are irrelevant. The <u>Louisiana PSC</u> decision cited by the Commission makes it clear that the issue of severability comes into view only when state regulations would thwart the federal exercise of a statutory mandate. Since the Telecommunications Act specifically defines a state role, and also circumscribes the FCC's role to that of a surrogate approval authority after 90 days of state inaction, the question of severability cannot be reached.

VI. Conclusion

For the foregoing reasons, the Commission should continue its well-founded reliance on market-based interconnection mechanisms, and permit carriers to continue in their efforts to implement cost-based mutual compensation between LECs and CMRS providers.

Respectfully submitted,

Frank M. Panek

Attorney for Ameritech

Room 4H84

2000 West Ameritech Center Drive

Hoffman Estates, IL 60196-1025

(847) 248-6064

Dated: March 4, 1996

³⁵ Louisiana PSC FCC, 476 U.S. 335, 371-76 (1986).

³⁶ 47 USC § 252 (e) (5).

Diagrams

of

Currently Available

Interconnection Arrangements for CMRS Companies

in the Ameritech States

INDEX

Subject	Diagram No.		Page
Overview			a.
Type 2A	Illinois, Indiana, Ohio, Wisconsin Billing Option 1	1	1.
Type 2A	Illinois, Indiana, Ohio, Wisconsin Billing Option 2	2 & 3	2.
Type 2B	Illinois, Indiana, Ohio, Wisconsin Billing Option 1 and 2	4 & 5	3
Type 2A	Michigan Billing Option 1	6 & 7	4.
Type 2B	Michigan Billing Option 1	8	5.
Type 2T	Michigan	9	6.
Type 2A & 2T	Connections to IXCs	10 & 11	7.
Type 1	All States	12	8.

Overview

The following diagrams depict the interconnection arrangements currently available to CMRS customers in the Ameritech states.

Interconnection arrangements are provided under state tariffs in Illinois, Indiana and Michigan. In Ohio and Wisconsin interconnection is provided under contracts.

The combination of interconnection types and associated billing options allows the CMRS to customize and optimize both the service it obtains from Ameritech and the methods in which payment is made to Ameritech.

Three types of interconnections are offered:

- Type 2A which connects the CMRS to the Ameritech tandem (s). Traffic to and from the end offices connected to the tandem can be completed over 2A service.
- Type 2B which connects the CMRS directly to an Ameritech end office. This
 connection allows only traffic to and from the connected end office.
- Type 1 which is a connection to an Ameritech end office and allows traffic to and from all Ameritech end offices in the LATA.

Ameritech also offers two billing options for calls from landlines to CMRS companies:

- Billing Option 1 which allows the CMRS company to pay for the call.
- Billing Option 2 which charges the landline caller for the call.

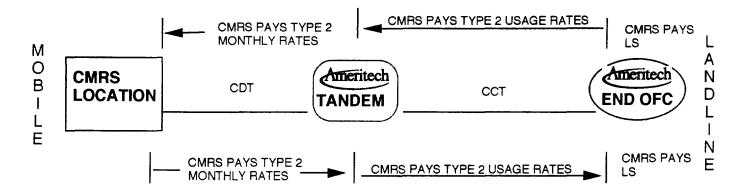
There is one additional choice the CMRS can choose to customize service: where the NXX assigned to the CMRS is rated.

Not all interconnection types and billing options are available in each state.

The technical characteristics of all three interconnection types are based on national standards published by Bellcore. The terms and conditions of interconnection are covered by the appropriate tariff or contract.

TYPE 2A - ILLINOIS, INDIANA, OHIO, WISCONSIN

BILLING OPTION 1 CMRS pays both directions



RATE LEGEND

LS - LOCAL SWITCHING

CDT - CELLULAR DEDICATED TRUNK

CCT - CELLULAR COMMON TRUNK

PAGE 1

TYPE 2A - ILLINOIS, INDIANA, OHIO, WISCONSIN BILLING OPTION 2 LANDLINE pays all in one direction CMRS pays all in other direction NXX RATED AT CMRS LOCATION NXX LANDLINE PAYS RES. OR BUS. RATES M Ameritech **CMRS** Ameritech N 0 D LOCATION END OF TANDEM В 1 L CDT CCT Ν **CMRS PAYS** E F CMRS PAYS TYPE 2 CMRS PAYS TYPE 2 USAGE RATES LS MONTHLY RATES CDT CCT DIAGRAM # 3 For discussion purposes only - property of AMERITECH TYPE 2A - ILLINOIS, INDIANA, OHIO, WISCONSIN BILLING OPTION 2 LANDLINE pays part in one direction CMRS pays part in one direction CMRS pays all in other direction NXX RATED AT AMERITECH TANDEM XXN. CMRS PAYS TYPE 2 MONTHLY RATES LANDLINE PAYS RES. OR BUS. RATES CDT Μ **CMRS** Ameritech Ameritech N 0 D LOCATION В END OFC TANDEM 1 L CCT CDT Ν E CMRS PAYS TYPE 2 USAGE RATES **CMRS PAYS TYPE 2 CMRS PAYS** E MONTHLY RATES RATE LEGEND CCT - CELLULAR COMMON TRUNK PAGE 2 LS - LOCAL SWITCHING J. EARLE 1/28/96

TYPE 2B - ILLINOIS, INDIANA, OHIO, WISCONSIN **BILLING OPTION 1 CMRS pays both directions** CDT CMRS PAYS CMRS PAYS TYPE 2 M LS MONTHLY RATES 0 Α В Ameritech **CMRS** N i LOCATION D END OFC E 1 N CDT CMRS PAYS E CMRS PAYS TYPE 2 _ LS

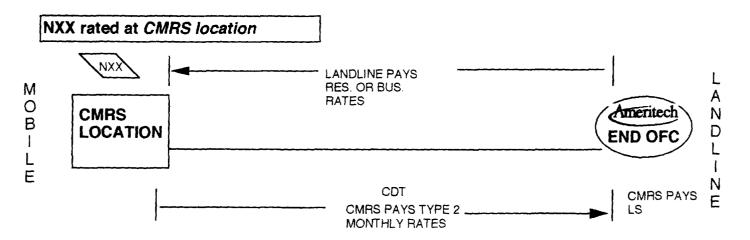
MONTHLY RATES

For discussion purposes only - property of AMERITECH

DIAGRAM # 5

TYPE 2B - ILLINOIS, INDIANA, OHIO, WISCONSIN

BILLING OPTION 2 LANDLINE pays all in one direction CMRS pays all in other direction



SPECIAL NOTE: For calls from landlines to NXXs that are rated at the tandem the calls will be sent to the tandem route and not the 2B route. ONLY CALLS TO NXXS THAT ARE RATED AT THE CMRS LOCATION WILL BE SENT OVER THE 2B ROUTE.

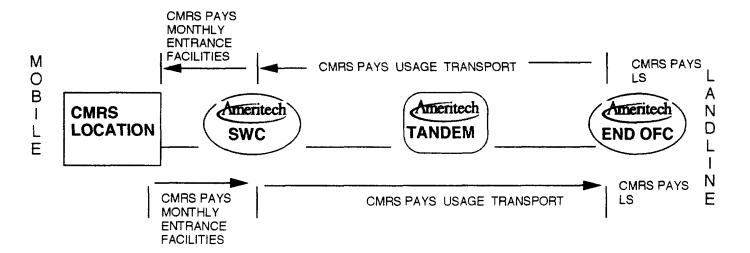
RATE LEGEND

CDT - CELLULAR DEDICATED TRUNK LS - LOCAL SWITCHING PAGE 3

28 OPT 1&2 4 STATES J. EARLE 1/28/96

TYPE 2A - MICHIGAN Common Transport

BILLING OPTION 1 - CMRS pays both directions

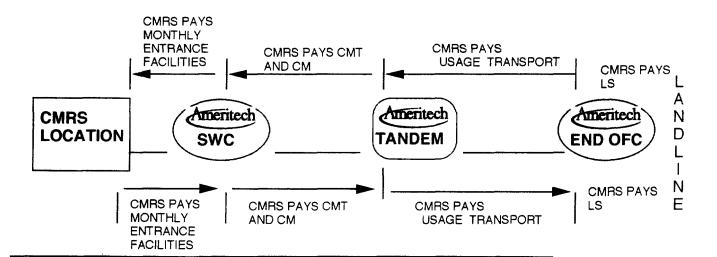


For discussion purposes only - property of AMERITECH

DIAGRAM # 7

TYPE 2A - MICHIGAN Common Transport and Dedicated Transport

BILLING OPTION 1 - CMRS pays both directions



RATE LEGEND

CM - CHANNEL MILEAGE

CMT - CHANNEL MILEAGE TERMINATION

LS - LOCAL SWITCHING

USAGE TRANSPORT - INCLUDES:TANDEM SWITCH TERMINATION, TANDEM SWITCHED

FACILITY, TANDEM SWITCHING, RESIDUAL CHARGE, AND INFORMATION SURCHARGE, AND PUBLIC MOBILE

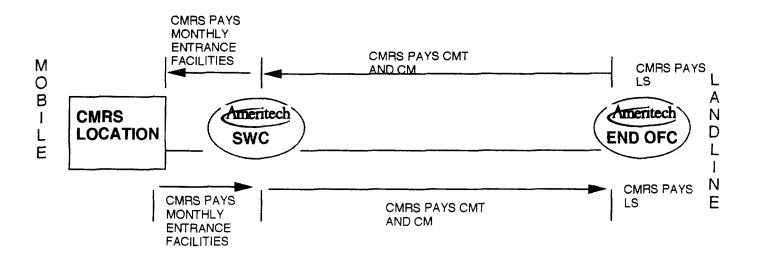
CARRIER USAGE CHARGE

2A OPT 1 MICH J. EARLE 1/28/96

PAGE 4

TYPE 2B - MICHIGAN - Dedicated Transport

BILLING OPTION 1 - CMRS pays both directions



SPECIAL NOTE: For calls from landlines to NXXs that are rated at the tandem the calls will be sent to the tandem route and not the 2B route. ONLY CALLS TO NXXS THAT ARE RATED AT THE CMRS LOCATION WILL BE SENT OVER THE 2B ROUTE.

RATE LEGEND

CM - CHANNEL MILEAGE

CMT - CHANNEL MILEAGE TERMINATION

LS - LOCAL SWITCHING

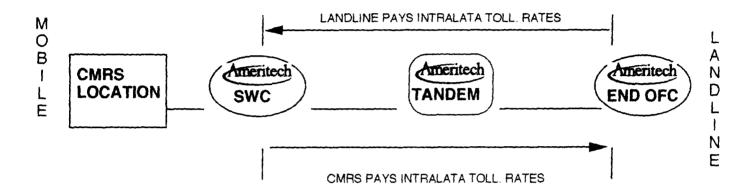
PAGE 5

2B OPT 1 MICH J. EARLE 1/28/99

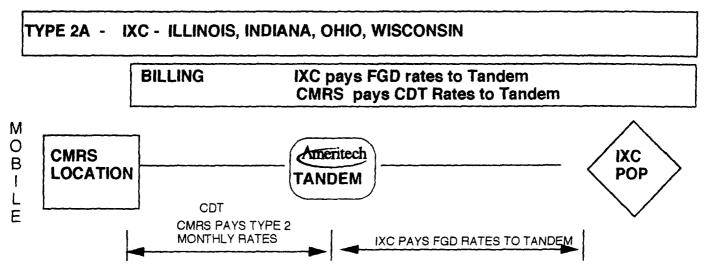
TYPE 2T - MICHIGAN (available in Michigan only)

BILLING

LANDLINE pays intra lata toll rates in one direction CMRS pays intra lata toll rates in one direction



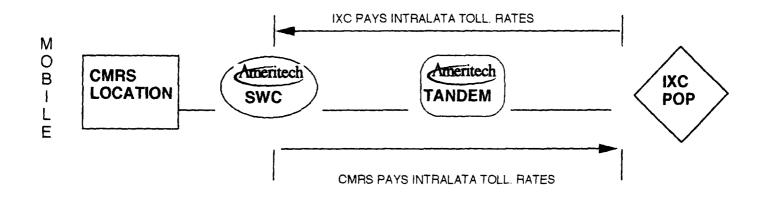
Type 2T is only available through an Ameitech tandem connection to Ameritech end offices that are intralata toll rating points. Rating point is based on the the SWC of the CMRS



For discussion purposes only - property of AMERITECH

DIAGRAM # 11

TYPE 2T - IXC - MICHIGAN (available in Michigan only) BILLING LANDLINE pays intra lata toll rates in one direction CMRS pays intra lata toll rates in one direction



Type 2T is only available through an Ameitech tandem connection to Ameritech end offices that are intralata toll rating points. Rating point is based on the the SWC of the CMRS